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(71) Applicants and
(72) Inventors: **ELLIOTT, Professor, Robert Bartlett** [NZ/NZ]; 19 Laureston Avenue, Papatoetoe, Auckland (NZ). **SKINNER, Stephen, John Martin** [NZ/NZ]; 19 Laureston Avenue, Papatoetoe, Auckland (NZ).

(74) Agents: **ADAMS, Matthew, D.** et al.; A J Park, 6th Floor Huddart Parker Building, PO Box 949, 6015 Wellington (NZ).

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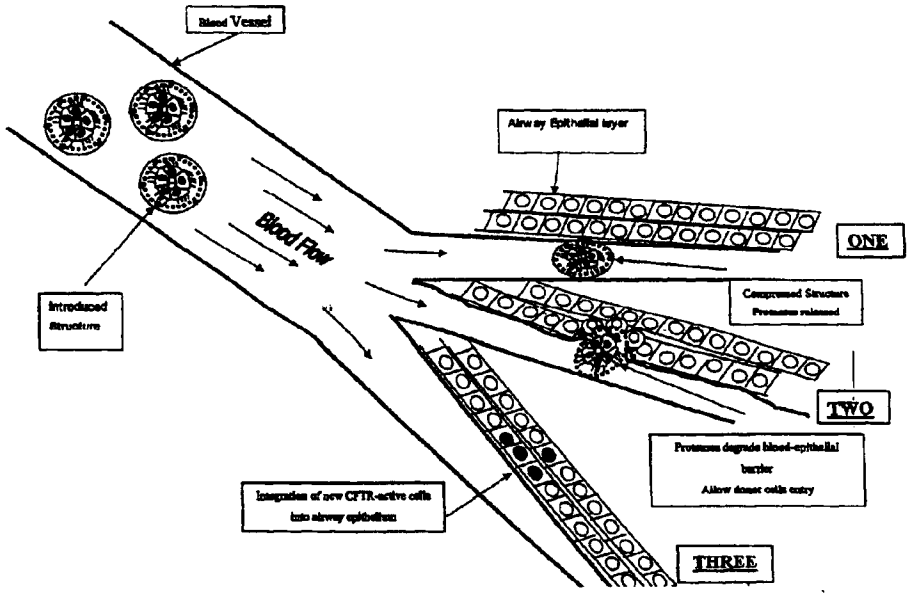
(54) Title: METHODS OF TREATMENT IN SITU IN THE LUNGS OF MAMMALS



(57) Abstract: The invention relates to a novel method of administration, and device employed in the method, for administering a treatment species to the lungs of a recipient patient. The method involves introducing the device of the invention to the venous system of the patient, the size of the treatment species being such that, upon introduction to the venous system of the patient, the device will impact in a region of a lung capillary of the patient. The treatment species gains access to the lung and/or lung epithelia due to proteases associated with the treatments species. The application of the method to the treatment of cystic fibrosis is also claimed.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/NZ02/00235

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. [7]: A61K 35/42, 35/68, 9/50, 9/64, 9/51; A61P 11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WPAT, MEDLINE. Key words: lung, cell, stem cell, CFTR, cystic fibrosis, protease, collagenase, proteoglycanase, device, and related terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	TONELLI, MR et al. New and Emerging Therapies for Pulmonary Complications of Cystic Fibrosis. Drugs, 2001, 61(10), pages 1379-1385 Whole document	1-64
P, A	FLOTTE, TR et al. Gene Therapy in Cystic Fibrosis. Chest, Sept. 2001, 120 (3 Suppl), pages 124S-131S Whole document	1-64

[X] Further documents are listed in the continuation of Box C [ ] See patent family annex

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
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"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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Name and mailing address of the ISA/AU

AUSTRALIAN PATENT OFFICE
PO BOX 200, WODEN ACT 2606, AUSTRALIA
E-mail address: pct@ipaustralia.gov.au
Facsimile No. (02) 6285 3929

Authorized officer

S. Chew
Telephone No : (02) 6283 2248

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CHENG, SH et al. Cationic Lipid Formulations for Intracellular Delivery of Cystic Fibrosis Transmembrane Conductance Regulator to Airway Epithelia. Methods in Enzymology, 1998, Vol. 292 pages 697-717 Whole document	1-64
A	RUBIN, BK Emerging Therapies for Cystic Fibrosis Lung Disease. Chest 1999, Vol. 115, pages 1120-1126 Whole document	1-64